

REMARKS

This amendment is a full and timely response to the Office Action dated July 15, 2003. By this amendment claims 1-6 have been canceled, claim 22 has been amended to include rotating a roller-type coating means and regulating, through one of two plates, a frit amount supplied to the roller-type coating means based on a rotational direction of the roller-type coating means. Support for the changes to claim 22 are supported variously throughout the specification. For example, support for the subject matter added to claim 22 can be found in the paragraph beginning at line 25, page 14. No new matter has been added. Claims 17-27 are pending where claims 17-21 are withdrawn, and claim 22 is independent.

Objection to the Drawings

The drawings were objected to for allegedly not including a legend. In particular, the Office Action alleges that Figs. 15-17 should be designated by a "Prior Art" legend. Applicants submit herewith substitute drawings for Figs. 15-17 that include the "Prior Art" legend. Accordingly, Applicants submit that the objection to the drawings should be withdrawn.

Rejections Under 35 U.S.C. §112

Claims 3 and 4 were rejected under 35 U.S.C. §112, second paragraph, for alleged indefiniteness. In particular, the Office Action alleges that it is unclear how the "predetermined amount" is determined from use of the language "predetermined amount," in claims 3 and 4. Applicants respectfully traverse this rejection.

As shown in Fig. 5, when the coating roller 24 is rotated, the frits 22 located in the frit tank 23 are supplied to the concave and convex surface 25 of the coating roller 24. The frits supplied to the coating roller 24 are then drawn by one of the upper drawing plates 26A or 26B depending on the direction of rotation so that the desired supply thickness d is realized. This desired supply thickness d directly corresponds to the predetermined amount of the frit 22 supplied to coating roller 24. In other words, the predetermined amount of the frit 22 supplied to the coating roller 24 is determined by the position of the drawing plates 26A or 26B. *See also* the paragraph beginning at page 14, line 23. Thus, Applicants submit that "predetermined amount" as recited in claims 3 and 4 is definite and fully supported by the specification.

Accordingly, Applicants respectfully request that the rejection of claims 3 and 4 under §112, second paragraph, should be withdrawn.

Rejections Under 35 U.S.C. §102

Claims 1-6, 22-24, 27/22, 27/23, 27/24 were rejected under 35 U.S.C. §102(b) as anticipated by *Merz et al.*, U.S. Patent No. 3,607,180. Applicant respectfully traverses this rejection.

Claims 1-6 have been canceled, therefore, the §102 rejection as it relates to these claims is moot and should be withdrawn.

Independent claim 22 recites a method of frit coating at least a portion of an object, comprising the steps of providing an object have a portion to be coated; rotating a roller-type coating means; supplying frit from a frit supplying means to the roller-type coating means for coating said object; coating at least said portion of said object by a roller-type coating means for coating said object; and regulating, through one of two plates, a frit amount supplied to the roller-type coating means based on a rotational direction of the roller-type coating means.

Merz discloses a coating apparatus having an applicator roller 10, a roller shaft 18 connected to the drive shaft of an electrical motor 24. The applicator roller 10 is supported with its lower portion within a container 30 to enable the stirring of a slurry 32 of suspended particles. The applicator roller 10 includes a roughened outer surface having raised portions and recessed portions that provide a gear tooth surface. This knurled design enables the applicator roller 10 to pick up the frit slurry 32 from the container 30. The thickness of the slurry coating 33 applied onto a funnel 34 is dependent upon the depth and shape of the knurl pattern. A scraper blade 42 is provided adjacent the front of the applicator roller 10 in order to make substantially uniform the thickness of the frit slurry layer 40 carried by the roller. *Merz*, however, discloses the use of a single scraper blade 42 and is effective only when the applicator roller 10 is rotating in one of a clock-wise or counter-clockwise direction.

As noted above, claim 1 recites, among other things, regulating, through one of two plates, a frit amount supplied to the roller-type coating means based on a rotational direction of the roller-type coating means. Through at least the aforementioned element the present invention stabilizes the amount of frit adhered to the roller and enables the coating process to be more

efficient, thereby increasing product quality. *Merz* fails to disclose, teach, or suggest at least this claim element. To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. *See Verdegall Bros. v. Union Oil Co. of Calif.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Because *Merz* fails to disclose, teach, or suggest at least regulating, through one of two plates, a frit amount supplied to the roller-type coating means based on a rotational direction of the roller-type coating means, *Merz* does not anticipate claim 22. Accordingly, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. §102 be withdrawn, and claim 1 be allowed.

Each of claims 23, 24, 27/22, 27/23, and 27/24 depend either directly or indirectly from independent claim 22. By virtue of this dependency claims 23, 24, 27/22, 27/23, and 27/24 are allowable for at least the same reasons discussed above, and are further distinguished over *Merz* by the additional elements recited therein, and particularly within each claimed combination. Accordingly, Applicants respectfully request that the rejection of claims 23, 24, 27/22, 27/23, and 27/24 be withdrawn, and these claims be allowed.

Rejections Under 35 USC §103

Claims 25, 26, 27/25, and 27/26 were rejected under 35 U.S.C. §103(a) as unpatentable over *Merz* in view of *Hiroshi et al*, Japanese Publication No., 11-096948. Applicants respectfully traverse this rejection.

The Office Action acknowledges that *Merz* does not teach sealing a flat-type glass tube assembly and relies on *Hiroshi* to remedy this deficiency.

Hiroshi discloses a luminous surface formed in a predetermined region on an inner wall surface of a screen panel is made up by putting, at least, a white inorganic material layer and a phosphor layer one on the other in this order. *Hiroshi*, however, fails to disclose, teach, or suggest at least regulating, through one of two plates, a frit amount supplied to the roller-type coating means based on a rotational direction of the roller-type coating means.

To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, obviousness "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the

combination." ACS Hosp. Sys. V. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Because neither *Merz* nor *Hiroshi* either singly or combined disclose, teach, or suggest at least regulating, through one of two plates, a frit amount supplied to the roller-type coating means based on a rotational direction of the roller-type coating means, the Office Action fails to establish a *prima facie* case for obviousness. For at least these reasons and those discussed above with respect to claim 22, Applicants respectfully request that the rejection of claims 25, 26, 27/25, and 27/26 be withdrawn, and these claims be allowed.

Conclusion

Based on at least the foregoing amendments and remarks, Applicants submit that claims 22-27 are allowable, and this application is in condition for allowance. Accordingly, Applicants request favorable reexamination and reconsideration of the application. In the event the Examiner has any comments or suggestions for placing the application in even better form, Applicants request that the Examiner contact the undersigned attorney at the number listed below.

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Respectfully submitted,
By _____
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Enclosure(s): Three (3) Sheets of Drawings (FIGS. 15, 16 and 17) - Replacement Sheet
Three (3) Sheets of Drawings (FIGS. 15, 16 and 17) - Annotated Sheet Showing
Changes

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